

CALTRAP CORE

AN INTRODUCTORY
GAME DESIGN SRD

V1.0



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CALTROP CORE

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INTRODUCTION

Hey there, I'm Lex, AKA titanomachyRPG.

Full disclosure: I'm brand new to game design. I came from D&D 5e and have since branched out to writing my own games! (Check out titanomachyrpg.itch.io to see them.)

Which is all to say: Everything here should be taken with a grain of salt. A lot of this is stuff I've taught myself or read in other RPGs. I am NOT pretending to be an expert here. I do think I have a particular penchant for getting over the "just get started" hump, however, so I want to offer you some tools to begin!

Caltrop Core is hopefully a system with simple mechanical tools that anyone can build on to make their first game!

If you're new to game design, welcome! We're on this journey together. The core mechanic fits on a single page, but I'll be adding some tips and tricks throughout to help you along making your first game.

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CALTROP CORE

Here's the core of the system, using d4s. It all fits on one page, so keep this handy while designing for it!

For a stat-driven game, simply assign a number between 1 and 3 to each stat. When that stat comes into play, roll that many d4s. Take the highest roll.

For a token-based game, players can gain and expend tokens, rolling as many d4s as tokens they expend. Take the highest roll.

TIP: Only roll dice when the action can be phrased as an "I want to..." statement.

D4 RESULT

- 1 Absolute Failure. You don't get what you want and things get a lot worse.
- 2 Partial Failure. You don't get what you want.
- 3 Partial Success. You get what you want, but things get complicated.
- 4 Absolute Success. You get what you want — and more.

CALTROP CORE

Now, “stat-driven” and “token-based” games aren’t mutually exclusive categories (Kids on Brooms is both). They’re not really categories at all; it’s just how I think of different types of games.

To me, “stat-driven” refers to games like D&D, where your stats directly influence outcomes. There will be an example of a stat-driven game built on the Caltrop Core starting on the next page.

“Token-based” games allow players to accumulate tokens in roleplay and spend them to influence the story in some way. Generally works well for narrative/roleplay-focused games, not as easily for combat simulation. My game [NIGHTHAWKS](#) is an example of a token-based game I built on Caltrop Core.

These are examples of what are called resolution mechanics. Dice are common, but so are playing cards, tarot cards, and in the case of Dread, even a jenga tower. It all depends on what your game needs. You may find that Caltrop Core isn’t the right system for your game, and that’s okay! Consider what areas of play the resolution mechanics are meant to, well, resolve. You don’t need a dice roll or a card pull for everything. In a collaborative storytelling game, players should be able to decide a lot through conversation.

DEMO BUILD

Caltrop Core is extremely bare bones so you can make whatever you want on top of it. Any complexity and depth you add is all you, baby! Or you can just use it for 1-page games and design practice. It's a lot of freedom, which can be daunting, but let's do a quick demo build together.

First, pick a genre. I'm thinking fantasy. A common reference point. Fantasy games are often stat-driven, so let's try that "mode" of Caltrop Core. For simplicity, come up with just 3 stats. Here are mine.

STATS

- **BODY.** Roll to resolve risky physical actions.
- **MIND.** Roll to resolve rigorous mental actions.
- **SOUL.** Roll to resolve precarious emotional actions.

Start out with 1 in each stat and cannot go above 3. This number represents how many d4s you roll for each stat. (Check the probability table on page 12 to see why I don't like going above 3.)

CHOOSE AN UPBRINGING

This overlaps with the idea of traditional fantasy "races," but applies to any increased attribute as a result of where you're from. Add 1 to a stat of your choice, relating to your Upbringing.

HEALTH

You don't need to track health unless you want to. In fantasy RPGs, hit points are a common way to create stakes. Since we'll have a lot of d4s handy, we can build a system around that die.

Everyone has 4 health to start. Use a d4 to track it, adjusting it when you take damage. Decide what happens when you take damage at 1 health, as well as how characters die (if at all).

DEMO BUILD

COMBAT

A fantasy adventuring game typically features combat. But what kind of combat do you want? Fast? Maybe combat is resolved with a single roll. This lends itself to narrative-first combat, where, for example, a 3 would mean the character wins but things get complicated. If you want something more tactical, try something like this: Roll BODY on the following table when engaging in combat. Each die resolves individually. If you roll a 1, a 3, and a 4, you'd take 2 damage from the 1 and 1 damage from the 3 for a total of 3 damage. You'd also deal 3 damage.

D4 RESULT

- 1 You take 2 damage as the opponent counters your attack.
- 2 You do not hit, and you are in the same position as before.
- 3 You deal and take 1 damage in the scrap.
- 4 You deal 2 damage.

Play with the damage table to your game's needs. The above reflects the Caltrop Core degrees of success. But something like this could be more suitable for a traditional fantasy adventure game:

D4 RESULT

- 1 You take 1 damage as the opponent counters your attack.
- 2 You do not hit, and you are in the same position as before.
- 3 You deal 1 damage.
- 4 You deal 2 damage.

DEMO BUILD

Classes are always fun, so let's make some here. But classes aren't the only way of doing things. You can also develop a "pick list" of abilities that a character can use to build out their own custom kit.

WARRIOR

Your BODY increases by 1.

TOUGH. Any damage you take is reduced by 1.

ROGUE

Your BODY or MIND increases by 1.

STREET SMART. Roll BODY+MIND to sneak around, pick locks, get information, and steal small items.

CLERIC

Your SOUL increases by 1.

CURE. Roll BODY+SOUL. Restore an amount of health equal to the number of 4s you rolled to an ally you can see.

WIZARD

Your MIND increases by 1.

ELEMENTAL BOLT. Roll MIND+SOUL to unleash a streak of elemental energy of your choice. You can deal an amount of damage equal to the number of 4s you rolled to one target you can see within 25 yards of you.

DEMO BUILD

Add a leveling up system if you'd like. Some options I've seen are...

- **STORY-BASED ADVANCEMENT.** After a significant narrative milestone, the GM can elect to award a level up.
- **SCALING EXPERIENCE POINTS.** Commonly seen in video game RPGs, each level has a fixed, predetermined number of XP required to reach it, and every monster has a fixed, predetermined number of XP it awards upon defeat.
- **FAIL FORWARD.** These systems reward you when you fail a roll. Maybe you get 1 XP every time you fail, and every 5 XP, you level up.

Then you can decide what a character receives upon level up, like +1 HP, +1 to a stat, or a new ability.

That's enough to start playing! And you can always create more abilities and mechanics along the way. Is this game good? Probably not. But it's enough of a finished game to play — and that's how you get started! The only way to do it is to do it.

I know there's a fear of making a bad thing. But what if your game was bad? What happens then? Probably not much, yeah?

And I know neurodivergence can make things harder. But try to give yourself some grace. No berating today. Just let yourself be. You're doing as much as you can do right now. Even if you could do more, would it be healthy?

PLUG 'N' PLAY

Here's a little cheat sheet to get started. But remember, none of this is law.

- Genre
- Tone
- Goal(s) of the players, if any

STAT- DRIVEN

- Pick a number of stats and name each one.
- Will the game use a class system, a pick list, or a combination of both?
- What is the core gameplay loop?
- What does this loop say about your values?

TOKEN- BASED

- What area of gameplay do tokens help resolve?
- How do characters acquire tokens?
- What can a character expend tokens to do?
- What does this type of exchange say about your values?

APPENDIX A: PLAY CALTROP CORE GAMES

[The First-Ever Caltrop Core Jam \(92 Games\)](#)

The very first Caltrop Core jam was a massive success. This amazing community (which I like to call the #CaltropCorps) made 92 games in 6 days.

[The Caltrop Core Directory \(110+ Games\)](#)

Click to check out the full list of games people made with Caltrop Core!

So if you need ideas or want to see how other people have used this system, there are SO many examples out there. Ping me on Twitter if you need me to ask the #CaltropCorps to find a certain type of game.

APPENDIX B:

TIPS & TRICKS

None of these are binding, but I've noticed a few things writing and reading Caltrop Core games.

- When you want to modify a stat, either for level up or a situational modifier, it's better to add or subtract d4s from the pool rather than give static bonuses (+1, +2, etc.). A +1 in a d4 system is like +5 in a d20 system, probability-wise.
- Tactical combat can be done in Caltrop Core, but it's tedious. To make moves and abilities feel different, you'll likely have to write a whole bunch of custom tables. I don't mind it myself, but some people might.
- Here's a table with the probabilities of different results based on how many d4s you roll (gifted to me by [@aaronsxl](#), who was the first person to publish a Caltrop Core game EVER). You'll notice anything above 3d4 has a trivial chance of failure, which is why I don't recommend having stats above 3. Without risk and stakes, stories get boring.

CALTROP CORE PROBABILITY				
	% OF ROLLING A 4	% OF ROLLING AT LEAST 3	% OF ROLLING ONLY 2 OR 1	% OF ROLLING ONLY 1
1d4	25.0%	50.0%	50.0%	25.0%
2d4	43.8%	75.0%	25.0%	6.3%
3d4	57.8%	87.5%	12.5%	1.6%
4d4	68.4%	93.8%	6.3%	0.4%
5d4	76.3%	96.9%	3.1%	0.1%

MAKING A CALTROP CORE GAME

If you want to use this system, simply put “Built on Caltrop Core” somewhere in your doc, and the following attribution text:

This work is based on Caltrop Core, published by [Titanomachy RPG](#). The Caltrop Core SRD is licensed for use under a [Creative Commons Attribution-ShareAlike 4.0 International License](#).



Additionally, a link to my Twitter (<https://twitter.com/titanomachyRPG>) and/or my Itch (<https://titanomachyRPG.itch.io>) would be greatly appreciated.

You are expressly forbidden from using this system to make games promoting racist, ableist, homophobic, transphobic, misogynist, fascist, or any otherwise bigoted ideas.

And if you're able, I encourage you to use a portion of the proceeds from any Caltrop Core game you release to support PoC game designers, game designers in the global south (like #RPGLATAM and #RPGSEA), local bail funds, mutual aid when you see someone in need online—something GOOD.